

## REMARKS

Claims 1-55 were pending in this application. By this amendment, claims 2-6 have been withdrawn as pertaining to a non-elected group. Claims 7-10, 13, 20-22, 41-47, 50, and 51 have been canceled without prejudice. Applicants reserve the right to pursue the canceled subject matter at a later time. Claim 1 has been amended to incorporate limitations from one or more previously dependent claim(s), claims 11, 14, 19, 23, and 24 have been amended to correct dependency, and claim 34 has been amended to correct form. Support for amended claim 1 can be found at least in canceled claims 9, 10 and 13.

To the extent that any of the claims are viewed to be narrowed by the amendments made herein, Applicants reserve the right to pursue protection of the broader scope of the subject matter in this or a later-filed application.

### Restriction Requirement

Applicants elect with traverse Examiner's Group II (claims 1, 10-12, 26-32, 48-49 and 52-55), drawn to bispecific fusion proteins wherein the first binding domain is derived from CD4 and compositions and kits comprising said proteins.

Applicants traverse the Restriction Requirement between Groups II and III, these groups and Group VI, and these three Groups and Groups VII, IX, X, and XII. Applicants respectfully request the Examiner reconsider the Restriction Requirement in light of the amendment and arguments presented below, and recombine these Groups in this application.

### **Groups II and III**

Applicants respectfully submit that the subject matter of at least Group III (claims 1, 13-18, 25-32, 48-49 and 52-55), drawn to bispecific fusion proteins wherein the second binding domain comprises the binding domain of an antibody and compositions and kits comprising said proteins, is required to be classified in the same Group as the claims in Group II.

37 C.F.R. § 1.475 requires unity of invention; unity of invention exists even if two or more inventions are encompassed in the claims when a group of inventions are “**so linked as to form a single general inventive concept**” (37 C.F.R. § 1.475). The subject matter of alleged Groups II and III are linked to form a single general inventive concept: a bispecific fusion protein effective in viral neutralization. In addition, by the amendments made herewith, Applicants have elected to pursue in the current application only a specific category of bispecific fusion proteins. The currently claimed bispecific fusion proteins: (1) are capable of binding to two sites on gp120; (2) include a first binding domain (capable of binding to an inducing site on gp120) that is derived from a CD4 molecule; and (3) include a second binding domain (capable of forming a neutralizing complex with the induced epitope of gp120) that comprises a binding portion of a variable region of an antibody heavy or light chain.

Clearly, the bispecific fusion proteins claimed in this application have two *different* domains linked together (see, for instance, Specification at page 8, line 11; page 16, line 23 through page 18, line 2). **Both** domains are **essential** aspects of a single invention, a single general inventive concept, and indeed a single molecule. The interaction of one binding domain with its target site exposes (induces) the target site of the second binding domain. Without the first binding domain-target interaction, the second binding domain-target interaction **could not take place**. Thus, claims in Group II and Group III are linked at least by the functional dependency of the second binding domain on the first binding domain. Applicants respectfully request that the Examiner reconsider the Restriction Requirement and rejoin at least Group II (claims 1, 10-12, 26-32, 48-49 and 52-55) and Group III (claims 1, 13-18, 25-32, 48-49 and 52-55) into the current application, based on these arguments and the amendments to the claims. Applicants believe that the amendments to Claim 1 also make it clear that the category of bispecific fusion proteins currently claimed is not so broad as to make a search unduly burdensome to the examiner.

## Group VI

Applicants also note that Group VI (claims 33, 34, and 37), drawn to a bispecific fusion protein comprising sCD4, scFv(17b) and a linker, is a specific example of the recombined subject matter of Groups II and III, in accordance with the amendments to Claim 1. Thus,

Applicants further request that the Examiner reconsider the Restriction Requirement with regards to Group VI, and recombine this Group with recombined Groups II and III.

**Groups VII, IX, X, and XII**

Example 17 of Examples Concerning Unity of Invention (see MPEP, Appendix AI, Administrative Instructions Under the PCT, pages AI-70 – AI-71) states that the “[e]xpression of a DNA sequence in a host cell results in the production of a protein which is determined by the DNA sequence. The protein and DNA sequence exhibit corresponding special technical features. Unity between claims 1 [Protein X] and 2 [DNA sequence encoding protein X] is accepted.”

Applicants therefore respectfully request that the Examiner reconsider the Restriction Requirement and rejoin Groups VII (claims 35 and 36), IX (claims 38 and 40), X (claims 38 and 40), and XII (claims 39 and 40) with Groups II and III, as these additional claims are drawn to nucleic acids encoding bispecific fusions proteins encompassed in the claims of Groups II and III.

**Claims 19, 23, and 24**

Applicants further request that the Examiner recombine claims 19, 23, and 24 with elected Group II and the other Groups discussed above. These claims are drawn to specific types of bispecific fusion proteins encompassed by amended Claim 1, and therefore no additional search would be required for the subject matter of these claims.

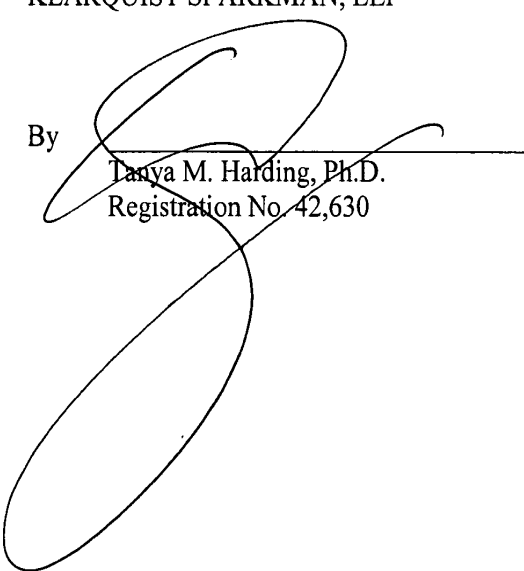
### CONCLUSIONS

In view of the amendments submitted herein, and for the reasons stated above, Applicants request that the Restriction Requirement be modified. If it may further prosecution, the Examiner is respectfully invited to call the undersigned at the number listed below.

Respectfully submitted,

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